



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,399	12/06/2001	Arturo A. Rodriguez	60374.0030US01/A-7492	2909
62658	7590	01/29/2010	EXAMINER	
MERCHANT & GOULD SCIENTIFIC ATLANTA, A CISCO COMPANY P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			SALCE, JASON P	
		ART UNIT	PAPER NUMBER	
		2421		
		MAIL DATE		DELIVERY MODE
		01/29/2010		PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/008,399	RODRIGUEZ, ARTURO A.
	Examiner	Art Unit
	Jason P. Salce	2421

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 16 September 2009.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-16,20-25,27-65,68-97 and 112-116 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-16,20-25,27-65,68-97 and 112-116 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. _____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application

6) Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments are persuasive regarding dependent claims regarding the rejection of Ukai in view of Alexander and Ukai in view of Block. While the Examiner disagrees with the arguments presented in regards to the rejection of Ukai in view of Herz, a Non-Final Rejection will be issued correcting rejections of the dependent claims and responding to the arguments regarding the independent claims.

In regards to independent claim 1, Applicant argues that it is unclear what the Office alleges is the viewing parameters, the scores and weighting. As recited in the claims, an overall preference score is determined for the plurality of tracked viewing parameters based on a linear combination of the weighted scores associated with each of the plurality of tracked viewing parameters for the user.

As noted in the Office Action, Herz discloses determining an **overall preference score(s)** in the calculation of an **agreement matrix**, wherein the agreement matrix is calculated using a customer profile containing both characteristics (**viewing parameters**) and weights (**weight scores**), wherein the overall preference score is determined for all of the characteristics in the customer profile based on a linear combination of the weighted scores associated with each of the plurality of tracked viewing parameters (**see Column 21, Lines 35-43 for calculating a weight matrix using the characteristics and the weights and using the weight matrix to calculate the agreement matrix**).

Applicant argues that Herz discloses viewing preferences in the form of characteristics that are different from the amount of time viewing a program (duration) viewing preferences, as taught by Ukai and that there exists no explanation as to the purpose of the weighting in Ukai, also suggesting a less significant role in the overall determination of preference measures, and more importantly, a fundamentally different methodology. In regards to these observations, Applicant argues that weighting appears more critical to Herz than to Ukai and therefore altering Ukai with the functionality of Herz would fundamentally alter the operation of Ukai, which weights only one element in its computation of a final or total view scores. The Examiner respectfully disagrees.

As stated in the previous Office Action, Ukai teaches viewing parameters and is aware of how to apply a weight value to one of the viewing parameters, however Ukai does not specifically teach applying a weight to all the viewing parameters and determining an overall preference score based on all of the weighted scores. Therefore, Herz has been applied to teach that each viewing parameter can be weighted and then an overall user preference score can be determined (**the agreement matrix**). Applicant states that because Ukai's viewing preferences are based on time spent watching a program and Herz's viewing preference are characteristics that are not based on time spent watching a program the combination of Ukai and Herz would fundamentally alter the operation of a final or total view score. The Examiner disagrees and notes that the claim limitation "viewing parameters" is broad and does not recite a

specific type of viewing parameter, therefore the combination of Ukai and Herz would allow Ukai to weight each viewing parameter (**value of a time the program is watched**) and then allow one of ordinary skill in the art to use those values to calculate an overall preference score, as taught by Herz. Herz clearly states that one advantage to using such a calculation scheme would be to provide video programs that have the most appeal to the customer (**see Column 9, Lines 50-51 of Herz**).

Applicant also notes that Ukai already chooses programs with the most appeal based on scoring and the underlying duration of viewing as the basis of the scoring and that it is not prudent to alter the system of Ukai to achieve that which it already performs with the modification. The Examiner disagrees and notes that by weighting all of the viewing parameters of Ukai individually (**using the functionality of Herz**), a more precise determination is made than just weighting one value of the viewing parameters, as taught by Ukai. Further noted by Herz, the calculation of the agreement matrix “**incorporates the desired amounts of the various characteristic used to define the programs, their importance (weights) to each customer and the amounts of these characteristics present in each program as determined by experts or test groups**” (**see Column 19, Lines 9-12 of Herz**).

Referring to dependent claims 3 and 4, Applicant argues that a frequency implies a per-time period basis. The Examiner respectfully disagrees.

The Examiner notes that the claim limitations are broad and that a frequency includes a number of times a program is viewed (**see the definition of “frequency” at**

www.dictionary.com, which states that a “frequency” is a “rate of occurrence”).

The claims fail to state any correspondence to a time period.

Referring to dependent claim 6, Applicant argues that Ukai fails to teach that a user preference conflicts with another user preference. Note the updated rejection of claim 6 for Herz teaching these limitations.

Referring to claims 10-12, Applicant argues that Ukai and Herz fail to teach the claim limitations. Note the updated rejection of these claims below.

Referring to claims 13-14, Applicant argues that viewing a program is not the same as indicating a preference against one or more viewing parameters. The Examiner respectfully disagrees.

The Examiner notes that the claims are broad and only state that the user input indicates a preference against one or more of the viewing parameters, and do not state in what way the preference is against one or more of the viewing parameters. Ukai teaches entering a view score each time a viewer enters a selection to watch a particular television program (**see Figures 4-5 and Column 5, Lines 29-55**). Therefore, since a program view measure is calculated each time a view score is entered (**see Column 5, Lines 40-55**), each view score is an additional preference against the other view score, because of the updated program view measure that is updated upon each additional view score added to the updated program view measure.

Referring to the remaining arguments by Applicant, see the Examiner's rebuttal above and the updated rejections below.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 49 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 49 states "logic for", however the specification on Page 21 states "executable instructions for implementing logical functions". Therefore it is unclear which portion of the specification corresponds to the claim limitations "logic for" and if the logic corresponds to a data stored on a storage medium or the written programming code.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 49-65 and 69-97 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Referring to claim 49, the claims states a system comprising “logic for”, which corresponds to a software program with no corresponding storage medium (**see MPEP 2106 Section IV**).

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 9/16/2009 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered by the examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims, 1-16, 20-24, 27-45, 49-65, 69-73, 75-94 and 112-116 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ukai et al. (U.S. Patent No. 7,096,486) in view of Herz et al. (U.S. Patent No. 5,758,257).

Referring to claim 1, Ukai discloses tracking a plurality of viewing parameters corresponding to services that are provided to a user (**see Figure 3 and Column 5, Lines 11-28 for storing/tracking a plurality of viewing parameters (program name, date and time, genre, time period, language and preference measure)** corresponding to services that are provided to the user (*note that a language and genre and the time a program is broadcasted is representative of a television service provided to the user*)).

Ukai also discloses determining a user preference for each of the plurality of viewing parameters (**see Figure 4 and Column 5, Lines 29-39 for the system determining a view time period which represents a user preference that is determined by monitoring how long a user watches a program and recording that time in memory**).

Ukai also discloses tracking the user preferences by assigning a score to each of the plurality of viewing parameters (**see Figure 5 and Column 5, Lines 40-55 for assigning a view score to each program's user preferences being tracked**).

Ukai also discloses determining an overall user preference score for the plurality of tracked viewing parameters based on a linear combination of the scores associated with each of the plurality of tracked viewing parameters for the user (**see Figure 5 for the program view measure 504 and Column 5, Lines 40-55 for the program view measure 504 being calculated based on a linear combination of the scores associated with each of the plurality of tracked viewing parameters for the user**).

Ukai also discloses receiving user input requesting television functionality (**see Figure 6 and Column 6, Lines 2-7 for receiving a user input everytime the user inputs a request to view a program**).

Ukai also discloses providing the user with a result that is responsive to the user input and the overall user preference score (**see Figure 17 and Column 15, Lines 21-23 for displaying an EPG that displayed programs that are preferred by the user based on the preferences scores determined by the scoring of the programs, where the result is shown by graphic 1704**).

Ukai fails to teach weighting each of the viewing parameters and determining an overall user preference score for the plurality of tracked viewing parameters based on a linear combination of the weighted scores associated with each of the plurality of tracked viewing parameters for the user.

Herz also discloses assigning scores to viewing parameters (**see Column 11, Line 30 through Column 15, Line 43 for creating and adjusting scores of characteristic values in customer profiles**) and weighting the scores (**see Column 10, Lines 39-40, Column 11, Lines 16-29 and Column 13, Lines 40-54**).

Herz further teaches determining an overall user preference score for the plurality of tracked viewing parameters based on a linear combination of the weighted scores associated with each of the plurality of tracked viewing parameters for the user (**see Column 19, Line 5 through Column 21, Line 62 for using the weighted scores to determine a overall user preference score for the plurality of tracked viewing parameters based on a linear combination of the weighted scores in the customer**

profiles associated with each of the tracked characteristics for the user). The Examiner further notes Column 29, Line 29 through Column 34, Line 11 for how customer profile characteristic values are continually updated based on the passive viewing of television program by a user, which includes additionally weighting the scores.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the preference determination system, as taught by Ukai, using the agreement matrix calculation technique, as taught by Herz, for the purpose of providing video programs that have the most appeal to the customer (see **Column 9, Lines 50-51 of Herz**).

Referring to claim 2, Ukai discloses that the user preference is determined based on a duration that service characterized by one or more of the plurality of viewing parameters is presented to the user (see **Figures 4 and 6 for determining the user's preference by using a duration (view time period 404) that a program has been viewed**).

Referring to claim 3, Ukai discloses that the user preference is determined based on a frequency that a service characterized by one or more of the plurality of viewing parameters is presented to the user (see **Figure 6 for determining a user preference 604 based on a number of programs 603 viewed**).

Referring to claim 4, Ukai discloses that the user preference is determined based on a duration and a frequency that a service characterized by one or more of the plurality of viewing parameters is presented to the user (**see the rejection of claim 2 for determining based on a duration and the rejection of claim 3 for determining based on a frequency**).

Referring to claim 5, Ukai discloses that the user preference is for a service (**see the rejection of claim 1 and note that the service is the broadcasting of television program for viewer selection**).

Referring to claim 6, Herz discloses that the user preference conflicts with another user preference (**see Column 45, Lines 45-47 for user preferences in Equation (25) conflicting if the delta value is large**).

Referring to claim 7, Ukai discloses that the user preference is defined by the user (**see Figure 4 for the user preference being determined by how long the user watches a television program**).

Referring to claim 8, Ukai discloses that the user preference is determined by tracking series that are provided by a digital home communication terminal (**see Figure 1 and Column 4, Lines 8-35 for the user preferences being tracked by a television receiver**).

Referring to claim 9, Ukai discloses that the result is only provided if a preference mode is activated (**see Column 4, Lines 21-53 for determining user preferences only when a user enters a program to be viewed, thereby activating the preference determination process**).

Referring to claim 10, Ukai teaches that the preference adaptive mode is activated via a switch located on a remote control device (**see Column 14, Lines 53-59 for activating a preference adaptive mode (*broadcast program selection mode*) based on a selection by the user using a remote control input device**).

Referring to claim 11, Ukai discloses that the user preference is determined based on user input (**see Column 4, Lines 8-61 for storing user selections made by user input using a remote control device, wherein the selections are used to determine the user preference as described in the rejection of claim 1**). Further note Column 14, Lines 10-34 of Herz for also entering preferences to viewing parameters.

Referring to claim 12, Ukai discloses that the user input indicates a preference for a viewing parameter (**see Column 4, Lines 8-61 for the user entering selections (preferences) for television programs using a remote control device, wherein the time the program selected was viewed is the preference for the viewing parameter**

(the television program)). Further note Column 14, Lines 10-34 of Herz for also entering preferences to viewing parameters.

Referring to claim 13, Ukai discloses that the user input indicates a preference against one or more of the plurality of viewing parameters (**see Figure 5 for the user viewing a program for a first time and second time, thereby showing entering a first time against a second time).**

Referring to claim 14, see the rejection of claim 13 and further note that the user can selection multiple programs (**see Figure 5 and Column 5, Lines 50-55 for continually updating the view score table 500).**

Referring to claim 15, Ukai discloses that a preference tracking database is used to keep track of the user preference (**see Figure 5 and Column 5, Lines 50-55 for updating the view score table 500).**

Referring to claim 16, see the rejection of claim 15 and note that the database keeps track of more than one user preference.

Referring to claims 20-22, Ukai discloses that the overall user preference score for the plurality of tracked viewing parameters changes over time, is revised using statistical analysis and determined using artificial intelligence (**see Figure 5 and**

Column 5, Lines 40-55 for the view scores being updated and using the data stored in tables 500-700 to artificially determine what programs a viewer may or may not enjoy watching, therefore since the system (*not the user*) determines what programs to present to the viewer, an artificial intelligence system is taught). Further note that since weighted view measures and mean score calculations are determined (**see the rejection of claim 1**), Ukai clearly teaches the use of statistical analysis.

Referring to claim 23, Ukai discloses that the data identifying a user preference is stored in non-volatile memory (**see storage means 108 in Figure 1**).

Referring to claim 24, Ukai discloses that data identifying the user preference is stored within a digital home communication terminal (**see the rejection of claim 23**).

Referring to claims 27-35, see Figures 3 and 6 and Column 5, Lines 11-28 and Column 5, Line 56 through Column 6, Line 20 and the rejection of claim 1.

Referring to claims 36-41, see Figures 17, 21, 25-26, Column 14, Line 45 through 18, Line 7.

Referring to claims 42-45, see Figure 12 and Column 9, Line 21 through Column 10, Line 50.

Referring to claims 49-65, 69-73 and 75-94, see the rejection of claims 1-16, 20-24 and 27-45, respectively.

Referring to claim 112, Ukai discloses initially estimating weights for weighting the scores using artificial intelligence technology (**see the rejection of claim 22 for how the system applies artificial intelligence technology and Column 5, Lines 44-55 for calculating an initial weight (1.0) when a program in a series of programs is viewed for the first time**).

Referring to claim 113, Ukai discloses refining the weights for weighting the scores using artificial intelligence technology (**see the rejection of claim 22 for how the system applies artificial intelligence technology and Column 5, Lines 44-55 for calculating an updated weight (Figure 5) when a program in a series of programs is viewed for a second time**).

Referring to claims 114-115, see the rejection of claims 112-113, respectively.

Referring to claim 116, see the rejection of claim 1 and further note that Ukai teaches at least a first portion of the viewing parameters overlapping in content of a second portion of the viewing parameters (**see the table of Figure 3 for the viewing parameters having a year entry for each program, wherein two programs are**

illustrated as having the same date, therefore having overlapping content in a first portion (*column dedicated to the program X TIME*) and a second portion (*column dedicated to the program YY INFORMATION STATION*), wherein the viewing parameters comprise a television service (see Figure 3 for a viewing parameter “X TIME” television program/service), a type of television service (see Figure for the viewing parameter “X TIME” being a news (type) television program/service), a television instance (see Figure 3 for the television program “X TIME” having a broadcasting mode field) and a type of television instance (see Figure 3 for the television program “X TIME” having a type of broadcasting mode, such as Bilingual).

Claims 25 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ukai et al. (U.S. Patent No. 7,096,486) in view of Herz et al. (U.S. Patent No. 5,758,257) in further view of Alexander et al. (U.S. Patent No. 6,177,931).

Referring to claim 25, Ukai and Herz disclose all of the limitations of claim 1, but fail to teach that the preference data is stored at the headend.

Alexander teaches that user preferences can be transmitted back to a headend for further analysis (**Column 29, Lines 12-36**).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the TV analysis process, as taught by Ukai and Herz, to perform the analysis at the headend, as taught by Alexander, for the purpose of

providing a lower cost TV receiving device that contains a cheaper processor and memory devices since there would be no need for processor intensive tasks (constantly processing and updating user preferences).

Referring to claim 74, see the rejection of claim 25.

Claims 46-48 and 95-97 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ukai et al. (U.S. Patent No. 7,096,486) in view of Herz et al. (U.S. Patent No. 5,758,257) in further view of Block et al. (U.S. Patent No. 6,675,384).

Referring to claims 46-48, Ukai and Herz disclose all of the claim limitations in claims 45-47, respectively, but fail to teach a conditional access system that will not tune to a program selection unless a user enters his/her PIN/password.

Block teaches a parental control program resident on a television receiver device (**see elements 100 and 110 in Figure 1 and Column 14, Lines 6-52**).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the TV receiving device, as taught by Ukai and Herz, to contain a parental control program, as taught by Block, for the purpose of providing a means for users to gain by being able to make informed choices (**see Column 2, Lines 42-49 of Block**).

Referring to claims 95-97, see the rejection of claims 46-48, respectively.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason P. Salce whose telephone number is (571) 272-7301. The examiner can normally be reached on M-F 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason P Salce/
Primary Examiner, Art Unit 2421

Jason P Salce
Primary Examiner
Art Unit 2421

January 26, 2010